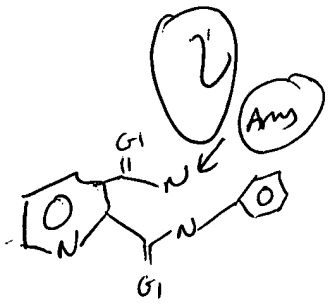

PROJECTED ITERATIONS: 331 TO 1029
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 12:44:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 809 TO ITERATE

100.0% PROCESSED 809 ITERATIONS 23 ANSWERS
SEARCH TIME: 00.00.01

L3 23 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	148.15	148.36

FILE 'CAPLUS' ENTERED AT 12:44:53 ON 07 AUG 2003
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FILE COVERS 1907 - 7 Aug 2003 VOL 139 ISS 6
FILE LAST UPDATED: 6 Aug 2003 (20030806/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L4 12 L3

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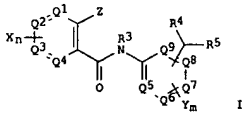
L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:906127 CAPLUS
DOCUMENT NUMBER: 137:384657
TITLE: Preparation of aromatic amides as agrohorticultural insecticides.
INVENTOR(S): Goto, Makoto; Yamaguchi, Minoru; Harayama, Hiroto; Nakao, Hayami; Furuya, Takashi; Tohnishi, Masanori; Morimoto, Masayuki; Fujioka, Shinsuke
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094765	A2	20021128	WO 2002-JP4742	20020516
WO 2002094765	A3	20030530		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2003034673	A2	20030207	JP 2002-144977	20020520

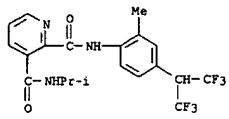
PRIORITY APPLN. INFO.: JP 2001-149365 A 20010518
OTHER SOURCE(S): MARPAT 137:384657
GI



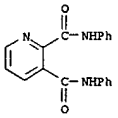
I

AB Title compds. [I; Z = CON(R2)AR1, (substituted) dihydroisoxazolyl; A = (substituted) alkylene, alkenylene, etc.; R1 = H, halo, cyano, NO2, cycloalkyl, alkoxycarbonyl, (substituted) Ph, heterocyclyl, etc.; R2 = H, alkyl, alkoxyalkyl, alkylthioalkyl; R3 = H, alkyl, alkoxyalkyl, alkylthioalkyl; R4 = H, F, fluoroalkyl; R5 = F, fluoroalkyl; X = halo, NO2, cyano, alkyl, haloalkyl, etc.; Y = halo, (substituted) Ph, PhO, etc.; Q1-Q9 = C, N; m = 0-3; n = 0-2], were prepd. N-(1,1-dimethyl-2-methylthioethyl)-6-iodophthalic acid isoimide, 2-methyl-4-[2,2,2-trifluoro-1-(trifluoromethyl)ethyl]aniline (prepn. given), and CF3CO2H were stirred 2 h in THF to give N2-(1,1-dimethyl-2-methylthioethyl)-3-iodo-N1-[2-methyl-

L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
4-[2,2,2-trifluoro-1-(trifluoromethyl)ethyl]phenyl]phthalamide. Numerous I at 50 ppm gave 100% kill of Plutella xylostella and Spodoptera litura.
IT **476336-87-5P**
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of arom. amides as agrohorticultural insecticides)
RN 476336-87-5 CAPLUS
CN 2,3-Pyridinedicarboxamide, N3-(1-methylethyl)-N2-[2-methyl-4-[2,2,2-trifluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:767251 CAPLUS
DOCUMENT NUMBER: 138:204915
TITLE: Improved synthesis of N-substituted 2,3-pyridinedicarboximides with microwave irradiation
AUTHOR(S): Blanco, Maria M.; Levin, Gustavo J.; Schapira, Celia B.; Perillo, Isabel A.
CORPORATE SOURCE: Department of Organic Chemistry, Faculty of Pharmacy and Biochemistry, University of Buenos Aires, Buenos Aires, 1113, Argent.
SOURCE: Heterocycles (2002), 57(10), 1881-1890
CODEN: HTCYAM; ISSN: 0385-5414
PUBLISHER: Japan Institute of Heterocyclic Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:204915
AB The microwave-induced synthesis of N-substituted 2,3-pyridinedicarboximides by means of two different approaches is presented. One involves direct N-alkylation of a quinolinimide (Method A) and the other, dehydrative condensation of a quinolinic anhydride and amines (Method B). Reactions resulted highly accelerated, with improved yields in relation to those obtained by conventional heating. The scope and limitations of each method and its variants are discussed.
IT **94301-63-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of N-substituted pyridinedicarboximides from microwave irradn.-induced alkylation or dehydrative condensation reactions)
RN 94301-63-0 CAPLUS
CN 2,3-Pyridinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)

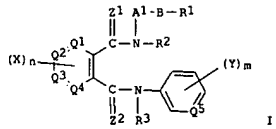


REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:472653 CAPLUS
DOCUMENT NUMBER: 135:76795
TITLE: Preparation of aromatic and heteroaromatic diamide derivatives as insecticides
INVENTOR(S): Tohnishi, Masanori; Kohno, Eiji; Nakao, Hayami; Nishida, Tateki; Furuya, Takashi; Shimizu, Toshiaki; Seo, Akira; Sakata, Kazuyuki; Fujioka, Shinsuke
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001046124	A1	20010628	WO 2000-JP9146	20001222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001022229	A5	20010703	AU 2001-22229	20001222
JP 2001240580	A2	20010904	JP 2000-390649	20001222
BR 2000016573	A	20020903	BR 2000-16573	20001222
EP 1241159	A1	20020918	EP 2000-985836	20001222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: JP 1999-365408 A 19991222
WO 2000-JP9146 W 20001222
OTHER SOURCE(S): MARPAT 135:76795
GI



I

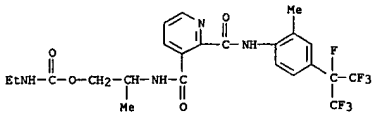
AB The title compds. I [A1 is optionally substituted C1-8 alkylene, C3-8 alkenylene, or the like; B is O or N(R4) (wherein R4 is H, C1-6 alkyl, halo C1-6 alkyl, or the like); R1 is H, C1-6 alkyl, optionally substituted Ph, an optionally substituted heterocyclic group, or the like; R2 and R3 are each H, C3-6 cycloalkyl, or A2R8 (wherein A2 is CO, CS, or C(:NR9); and R8 and R9 are each H, C1-6 alkyl, or the like); Q1 to Q5 are each

L4 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
carbon or nitrogen; X and Y are each halogeno, cyano, nitro, C3-6 cycloalkyl, optionally substituted Ph, an optionally substituted heterocyclic group, or the like; n is 0 to 4; m is 1 to 5; and Z1 and Z2 are each O or S] are prepd. Compds. of this invention at 50 ppm gave 90% to 99% control of Plutella xylostella and of Spodoptera litura.

IT **346575-48-2P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of arom. and heteroarom. diamide derivs. as insecticides)

RN 346575-48-2 CAPLUS

CN Carbamic acid, ethyl-, 2-[[[2-[[[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]amino]carbonyl]-3-pyridinyl]carbonyl]amino]propyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

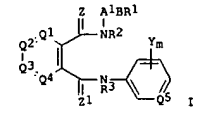
L4 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:228847 CAPLUS
DOCUMENT NUMBER: 134:252360
TITLE: Preparation and effect of aromatic diamide derivatives or salts as agricultural/horticultural insecticides
INVENTOR(S): Tohnishi, Masanori; Nakao, Hayami; Kohno, Eiji; Nishida, Tateki; Furuya, Takashi; Shimizu, Toshiaki; Seo, Akira; Sakata, Kazuyuki; Fujioka, Shinsuke; Kanno, Hideo
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021576	A1	20010329	WO 2000-JP6514	20000922
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1215200	A1	20020619	EP 2000-961197	20000922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 2000014139	A	20020820	BR 2000-14139	20000922
JP 2001158764	A2	20010612	JP 2000-290844	20000925

PRIORITY APPLN. INFO.: JP 1999-270582 A 19990924
WO 2000-JP6514 W 20000922
OTHER SOURCE(S): MARPAT 134:252360
GI

L4 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



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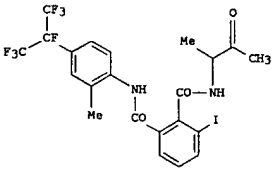


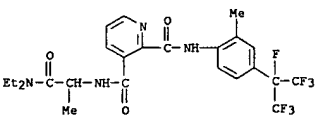
II

AB Title compds. {I; wherein A1 represents alkylene, alkenylene or alkynylene; B represents, CO, or CH(=N); R1 to R3 represent each H, CH3, CH2CH3, OCH2Ph, NHEt, NEt2, OMe, etc.; Q1-Q5 independently = CX, CH, N; X = 3-F, 3-Cl, 3-Br, 3-I, 6-I, 3-CF3, 3-OCF3, 3-NO2; Y represents halogeno, etc.; m is from 0 to 5; Z = O, S; Z1 = O, S} or salts thereof and agricultural/horticultural chems. contg. the same as the active ingredient are prepd. as insecticides. Thus, the title compd. II was prepd. and tested.

IT **331686-02-3P 331686-03-4P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and effect of arom. diamide derivs. or salts as agricultural horticultural insecticides)

RN 331686-02-3 CAPLUS

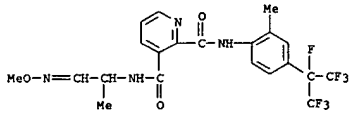
CN 2,3-Pyridinedicarboxamide, N3-[2-(diethylamino)-1-methyl-2-oxoethyl]-N2-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)



RN 331686-03-4 CAPLUS

L4 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

CN 2,3-Pyridinedicarboxamide, N3-[2-(methoxyimino)-1-methylethyl]-N2-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

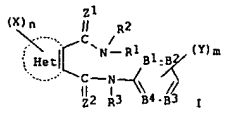
Ownwork

L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:12413 CAPLUS
DOCUMENT NUMBER: 134:71497
TITLE: Preparation of heterocyclic dicarboxylic acid diamide derivatives as agricultural and horticultural insecticides
INVENTOR(S): Katsuhira, Takeshi; Furuya, Takashi; Gotoh, Makoto; Tohnishi, Masanori; Takaishi, Hideo; Sakata, Kazuyuki; Morimoto, Masayuki; Seo, Akira
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 160 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001000575	A1	20010104	WO 2000-JP4136	20000623
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000011818	A	20020319	BR 2000-11818	20000623
EP 1188745	A1	20020320	EP 2000-940823	20000623
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AU 761273	B2	20030529	AU 2000-55689	20000623
JP 2001064258	A2	20010313	JP 2000-191500	20000626
PRIORITY APPLN. INFO.:			JP 1999-179035 A	19990624
			WO 2000-JP4136 W	20000623

OTHER SOURCE(S): MARPAT 134:71497
GI

L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



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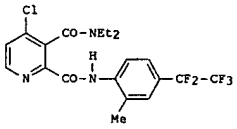
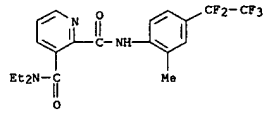


II

AB The title compds. I [R1, R2 and R3 represent each H, optionally halogenated C3-6 cycloalkyl, etc.; Het represents a 5- or 6-membered heterocycle; X and Y represent each halocyano, nitro, optionally halogenated C3-6 cycloalkyl, optionally substituted Ph, an optionally substituted heterocycle, etc; n is from 0 to 3; m is from 1 to 5; Z1 and Z2 represent each O or S; and B1 to B4 represent each C or N] are prepd. I have an excellent controlling effect on pest insects such as diamond-back moth (Plutella xylostella) and tobacco cutworm (Spodoptera litura). The title compd. II at 500 ppm gave .gtoreq. 90% control of Plutella xylostella.

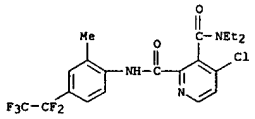
IT **314762-51-1P 314762-52-2P 314762-53-3P**
314762-54-4P 314762-55-5P 314762-56-6P
314762-57-7P 314762-58-8P 314762-59-9P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of heterocyclic dicarboxylic acid diamide derivs. as agricultural and horticultural insecticides)

RN 314762-51-1 CAPLUS
CN 2,3-Pyridinedicarboxamide, N3,N3-diethyl-N2-[2-methyl-4-(pentafluoroethyl)phenyl]- (9CI) (CA INDEX NAME)

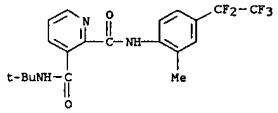


RN 314762-52-2 CAPLUS

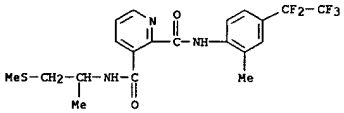
L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CN 2,3-Pyridinedicarboxamide, 4-chloro-N3,N3-diethyl-N2-[2-methyl-4-(pentafluoroethyl)phenyl]- (9CI) (CA INDEX NAME)



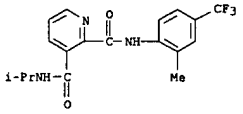
RN 314762-53-3 CAPLUS
CN 2,3-Pyridinedicarboxamide, N3-(1,1-dimethylethyl)-N2-[2-methyl-4-(pentafluoroethyl)phenyl]- (9CI) (CA INDEX NAME)



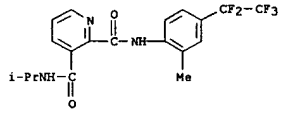
RN 314762-54-4 CAPLUS
CN 2,3-Pyridinedicarboxamide, N3-[1-methyl-2-(methylthio)ethyl]-N2-[2-methyl-4-(pentafluoroethyl)phenyl]- (9CI) (CA INDEX NAME)



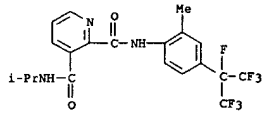
RN 314762-55-5 CAPLUS
CN 2,3-Pyridinedicarboxamide, N3-(1-methylethyl)-N2-[2-methyl-4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



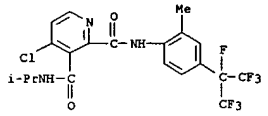
L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
RN 314762-56-6 CAPLUS
CN 2,3-Pyridinedicarboxamide, N3-(1-methylethyl)-N2-[2-methyl-4-(pentafluoroethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 314762-57-7 CAPLUS
CN 2,3-Pyridinedicarboxamide, N3-(1-methylethyl)-N2-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

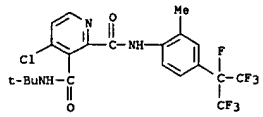


RN 314762-58-8 CAPLUS
CN 2,3-Pyridinedicarboxamide, 4-chloro-N3-(1-methylethyl)-N2-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)



RN 314762-59-9 CAPLUS
CN 2,3-Pyridinedicarboxamide, 4-chloro-N3-(1,1-dimethylethyl)-N2-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

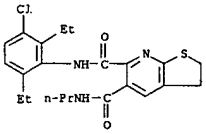
L4 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

diethylphenyl)aminocarbonyl)-7-fluoro-2-quinolinecarboxamide (II; X1 = F). II (X1 = H) at 5 kg/ha preemergence controlled 100% Alopecurus aequalis, Echinochloa crus-galli, Abutilon theophrasti, Xanthium pensylvanicum, Galium spurium, and Veronica persica and gave no injury to wheat and soy bean seedlings.

IT 257874-70-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of fused-heterocycle dicarboxylic diamide derivs. as herbicides)

RN 257874-70-7 CAPLUS

CN Thieno[2,3-b]pyridine-5,6-dicarboxamide, N6-(3-chloro-2,6-diethylphenyl)-2,3-dihydro-N5-propyl- (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:98523 CAPLUS
DOCUMENT NUMBER: 132:151835
TITLE: Preparation of fused-heterocycle dicarboxylic diamide derivatives or salts thereof, herbicides and usage thereof
INVENTOR(S): Takaishi, Hideo; Katsuhira, Takeshi; Yamaguchi, Hiroshi; Kawabata, Yoichi; Harayama, Hiroto; Oda, Yoshiki; Murai, Masahiko
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 118 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006549	A1	20000210	WO 1999-JP4009	19990727
W: BR, CA, CN, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2338827	AA	20000210	CA 1999-2338827	19990727
EP 1101758	A1	20010523	EP 1999-933115	19990727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9912571	A	20011120	BR 1999-12571	19990727
JP 2000103708	A2	20000411	JP 1999-214000	19990728
US 6444617	B1	20020903	US 2001-744579	20010126
US 2003073582	A1	20030417	US 2002-133444	20020429

PRIORITY APPLN. INFO.: JP 1998-212817 A 19980728
WO 1999-JP3009 W 19990727
WO 1999-JP4009 W 19990727
US 2001-744579 A3 20010126

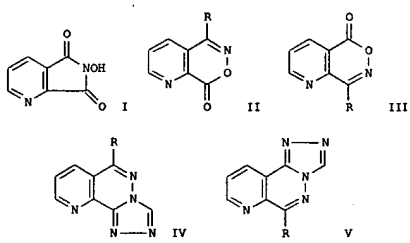
OTHER SOURCE(S): MARPAT 132:151835
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Fused-heterocycle dicarboxylic diamide derivs. represented by general formula [I; wherein R1 is H or C1-6 alkyl; R2 and R3 are each H, (halo)-C1-6 alkyl, C3-8 cycloalkyl, substituted amino-C1-6 alkyl, (substituted) phenyl-C1-6 alkyl, (substituted) phenyl-C1-6 alkoxy or the like, or R2 and R3 are united to form a 5- or 6-membered heterocycle bearing at least one member selected from among O, S and N; X is H, halogeno, NO2, cyano, C1-5 alkyl, (substituted) Ph, (substituted) phenoxy or the like; Het = heterocyclic ring, e.g. Q, Q1, Q2, Q3, etc.; wherein Y, R4. and R9 are each H, halo, no2, cyano, c16 alkyl or the like; and A, B, D, E, F, G, J, and K are each O, S, N, sulfinyl or the like; Z = O, S, (un)substituted NH] are prepd. Thus, n-propylamine was added to a soln. of N-(3-chloro-2,6-diethylphenyl)-7-fluoro-2,3-quinoinedicarboximide in THF and allowed to react for 12 h to give N-propyl-3-((3-chloro-2,6-

L4 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:469545 CAPLUS
DOCUMENT NUMBER: 129:189286
TITLE: New synthesis of pyrido[2,3-d]- and -[3,2-d]oxazines
AUTHOR(S): Fahmy, Amin F.; Sauer, Jurgen; Youssef, Mohamed Salah K.; Abdel Halim, Mohamed Said; Hassan, Mamdouh A.
CORPORATE SOURCE: Chemistry Department, Ain Shams University, Cairo, Egypt
SOURCE: Synthetic Communications (1998), 28(15), 2871-2886
CODEN: SYNCAV; ISSN: 0039-7911
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

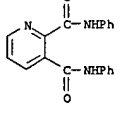


AB N-Hydroxy-2,3-pyridinedicarboximide (I) reacts with arom. amines, hydrazine hydrate, and arom. hydrocarbons to give 2,3-bis(arylcarbamoyl)pyridines, pyrrolopyridines, pyridopyridazines, and pyridooxazines II [R = (un)substituted phenyl] and III (same R). II and III can be transformed into triazolopyridopyridazines IV and V through series of reactions.

IT **94301-63-0P 211629-95-7P 211629-96-8P**
211629-97-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

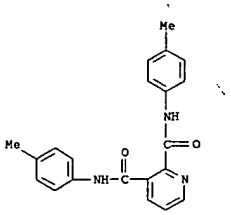
RN 94301-63-0 CAPLUS

CN 2,3-Pyridinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)

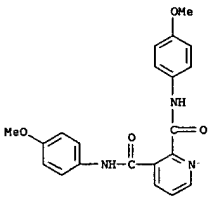


RN 211629-95-7 CAPLUS

L4 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CN 2,3-Pyridinedicarboxamide, N,N'-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)

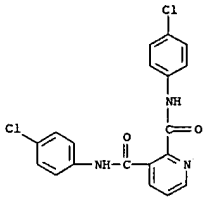


RN 211629-96-8 CAPLUS
CN 2,3-Pyridinedicarboxamide, N,N'-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)



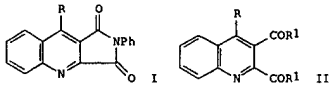
RN 211629-97-9 CAPLUS
CN 2,3-Pyridinedicarboxamide, N,N'-bis(4-chlorophenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

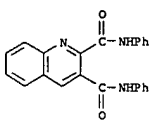


REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

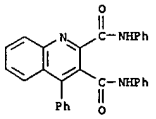
L4 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:551774 CAPLUS
DOCUMENT NUMBER: 101:151774
TITLE: Potential antiallergic agents. IV. Synthesis and biological evaluation of quinoline-2,3-dicarboximide derivatives
AUTHOR(S): Liu, Kang Chien; Shih, Bi Jane
CORPORATE SOURCE: Dep. Pharm., Natl. Def. Med. Cent., Taipei, Taiwan
SOURCE: Taiwan Yaoxue Zazhi (1983), 35(2), 119-24
CODEN: JTPHAO; ISSN: 0368-4520
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB Imides I (R = H, Ph) were prepd., and they exhibited antiallergic activity. Thus, 2-H2NC6H4CHO was treated with MeO2CC.tplbond.CCO2Me to yield diester II (R = H, R1 = OMe), the latter was converted to diamide II (R = H, R1 = NHPh), and the product was heated with Ac2O to give I (R = H).
IT **92263-09-7P 92263-10-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclocondensation of)
RN 92263-09-7 CAPLUS
CN 2,3-Quinolinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)

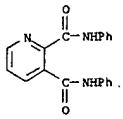


RN 92263-10-0 CAPLUS
CN 2,3-Quinolinedicarboxamide, N,N',4-triphenyl- (9CI) (CA INDEX NAME)

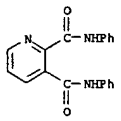


L4 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

L4 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1964:90664 CAPLUS
DOCUMENT NUMBER: 60:90664
ORIGINAL REFERENCE NO.: 60:15809g-h
TITLE: Catalytic reduction of furan carbonyl and hydroxy compounds
AUTHOR(S): Shuikin, N. I.; Bel'skii, I. F.; Savekina, O. N.
CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Moscow
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1964), (3), 534-7
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB 2-Acylfurans were reduced in 95% yield to the corresponding alkylfurans over Raney Cu at 220.degree.; thus were obtained 2-methyl-5-propyl-, 2,4-dimethyl-5-ethyl-, and 2-methyl-4,5-diethylfurans. Alkylfurylcarbinols were reduced at 220.degree. over 10% Pt-C or Raney Ni to the corresponding alkylfurans, which, in turn, were converted by hydrogenolysis into aliphatic ketones; the C-O bond cleavage took place over Pt-C, while over Raney Ni a conjugated hydrogenolysis took place to yield mixts. of 35-50% 2-alkylfurans and 40-50% aliphatic ketones.
IT **94301-63-0**, 2,3-Pyridinedicarboxanilide
(prepn. of)
RN 94301-63-0 CAPLUS
CN 2,3-Pyridinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)

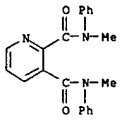


L4 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1964:90663 CAPLUS
DOCUMENT NUMBER: 60:90663
ORIGINAL REFERENCE NO.: 60:15809f-h
TITLE: Acylations with the acid chlorides of 2,5-diphenylfuran-3,4-dicarboxylic acid and 2,5-dimethylfuran-3,4-dicarboxylic acid and related compounds. II
AUTHOR(S): Nightingale, Dorothy V.; Needles, Howard L.
CORPORATE SOURCE: Univ. of Missouri, Columbia
SOURCE: Journal of Heterocyclic Chemistry (1964), 1(2), 74-5
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. CA 53, 21869c. The Friedel-Crafts acylation of 6 phenol ethers with 2,5-diphenylfuran-3,4-dicarbonyl chloride and with 2,5-dimethylfuran-3,4-dicarbonyl chloride yielded 2,5-disubstituted-3,4-diaroylfurans or cyclic diketones. 2,5-Diphenylfuran-3,4-dicarboxylic acid anhydride were treated with these ethers to form oxo acids.
IT **94301-63-0**, 2,3-Pyridinedicarboxanilide
(prepn. of)
RN 94301-63-0 CAPLUS
CN 2,3-Pyridinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)

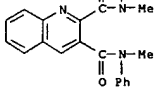


L4 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1963:469038 CAPLUS
DOCUMENT NUMBER: 59:69038
ORIGINAL REFERENCE NO.: 59:12754b-g
TITLE: Hydrogenolysis of N-substituted amides of pyridinedi- and -tricarboxylic acids
AUTHOR(S): Ried, W.; Neidhardt, G.
CORPORATE SOURCE: Univ. Frankfurt a. M., Germany
SOURCE: Ann. (1963), 666, 148-55
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Amides of various pyridine and quinolinecarboxylic acids can be reduced to the corresponding aldehydes by use of LiAlH4 (I) in tetrahydrofuran (II). 3,5-Dimethylpyrazolides (III) and N-methylanilides (IV) of such acids were prepd. in good yields by the reaction of the acid chlorides (V) with 3,5-dimethylpyrazole (VI) or PhNHMe in abs. II. 3,4-Pyridinedicarbonyl chloride (VII) and 2,3-quinolinedicarbonyl chlorides (VIII) were prepd. from the acids (0.10 mole) by heating with 0.21 mole PCl5 and distg. or crystg. the products to give 94% VII, b10 130.degree., and 95% VIII, m. 125-6.degree. (Et2O-ligroine). The remaining V were prepd. from 0.05 mole acid and 0.45 mole SOCl2, the time of reaction being reduced to 2 hrs. by addn. of 2 ml. HCONMe2; thus, 2,4,6-pyridinetricarbonyl chloride was prepd. in 95% yield, m. 89-91.degree. (C6H6-ligroine). 2,6-Pyridinedicarbonyl chloride (4.1 g.) in 30 ml. II was added slowly with stirring to a soln. of 0.08 mole VI in 50 ml. II. After 5 hrs. the mixt. was filtered with suction and the ppt. washed with 10 ml. II. The filtrate was evapd. in vacuo and the residue washed with Et2O to remove VI. Recrystn. from dioxane or C6H6 gave 95% colorless needles, m. 197.degree.. Similarly prepd. were the following III (pyridinecarboxylic acid isomer, % yield, m.p., and solvent of crystn. given): 2,3-, 92, 142-3.degree., C6H6-ligroine; 2,5-, 83, 188.degree., dioxane; 3,4-, 80, 113.degree., Et2O-ligroine; 2,4,6-, 90, 179-80.degree., dioxane-Et2O; (2,3-quinolinedicarboxylic acid, 86, 181.degree., C6H6-ligroine). The following IV were prepd. (data as above): 2,3-, 93, 149.degree., C6H6-ligroine; 2,4-, 87, 169-70.degree., C6H6; 2,5-, 91, 159.degree., C6H6; 2,6-, 96, 167-8.degree., C6H6; 2,3-, 80, 183.degree., C6H6-ligroine; 2,4,6-, 94, 225.degree., C6H6 (2,3-quinolinedicarboxylic acid, 88, 183.degree., C6H6-ligroine). I was added in small portions with stirring to a soln. of 0.01 mole III or IV in 70-100 ml. II at 0.degree. and the mixt. was stirred at 15.degree.. The complex was decompd. with 2N HCl and the soln. made weakly alk. with 2N Na2CO3. The ppt. was filtered off with suction and washed with 30-50 ml. warm CHCl3. The aq. soln. of II was extd. exhaustively with CHCl2. The exts. were dried over Na2SO4 and freed from CHCl3. Unchanged III or IV pptd. when the residue was dissolved in warm Et2O. Distn. in vacuo of Et2O and amine gave crude aldehydes (IX). 1,3-Diphenylimidazolidines (X), were prepd. from IX and dianilinomethane in MeOH and crystd. from MeOH or dioxane. Decompn. of X with dil. HCl and repeated sublimation gave pure IX, e.g., 2,5-pyridinedicarboxaldehyde, m. 67-9.degree., .nu.co 1698, 1724 cm.-1 The reaction of IX with excess o-H2NC6H4SH in boiling EtOH gave benzothiazoylylpyridines (XI) which were crystd. from MeCOEt or dioxane. The following IX were prepd. (pyridine acid amide, I, mole, time, hrs. at 15.degree., % yield, 2,4-dinitrophenylhydrazone m.p., X m.p., XI m.p.): III 2,3-isomer, 0.33, 15, 60 (or IV 2,3-isomer, 0.33, 12, 61), 265.degree., -, -; III 3,4-isomer, 0.33, 18, 53 (or IV 3,4-isomer, 0.5, 6, 54), 268.degree., -, -; 2,4-isomer, 0.5, 5, 67, -, 242.degree., 223.degree.; III 2,5-isomer, 0.33, 20, 53 (or IV 2,5-isomer, 0.5, 5, 58), 335.degree., 272.degree., 317.degree.; III, 2,6-isomer, 0.33, 18, 70, (or IV 2,6-isomer, 0.5, 1, 91), 302.degree., 256.degree., 276.degree.; III 2,4,6-isomer, 0.33, 18, 49 (or IV 2,4,6-isomer, 0.5, 6, 53), -, 278.degree., 380.degree. (decompn.).

L4 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
7-Oxo-6,8-diphenyl-7H-cyclohepta[c]pyridine was prepd. from 3,4-pyridinedicarboxaldehyde (from 0.01 mole IV) and 0.01 mole (PhCH2)2CO in 30 ml. EtOH and 1 ml. KOH in MeOH, yellow needles, m. 128.degree. (aq. EtOH).
IT **94870-71-0**, 2,3-Pyridinedicarboxanilide, N,N'-dimethyl-
95804-16-3, 2,3-Quinolinedicarboxanilide, N,N'-dimethyl-
(prepn. of)
RN 94870-71-0 CAPLUS
CN 2,3-Pyridinedicarboxanilide, N,N'-dimethyl- (7CI) (CA INDEX NAME)



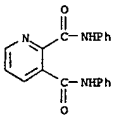
RN 95804-16-3 CAPLUS
CN 2,3-Quinolinedicarboxanilide, N,N'-dimethyl- (7CI) (CA INDEX NAME)



L4 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1962:25020 CAPLUS
DOCUMENT NUMBER: 56:25020
ORIGINAL REFERENCE NO.: 56:4720d-g
TITLE: Reaction of quinolinimide and N-substituted quinolinimides with amines
AUTHOR(S): Dimitrijevic, Djordje M.; Tadic, Zivorad D.
CORPORATE SOURCE: Inst. Org. Chem., Beograd, Yugoslavia
SOURCE: Glas nik Hem. Drustva, Beograd (1957), 22, 473-81
DOCUMENT TYPE: Journal
LANGUAGE: German

AB cf. CA 50, 7109g; 54, 4565e.-Reaction of quinolinimide (I) with amines was compared to the analogous reaction of quinolinic anhydride as to rate and direction of ring opening. Exptl. results confirmed predictions made on theoretical grounds. I and its N-substituted derivs. reacted more slowly than the anhydrides, less readily with feebly basic amines, and gave both possible products of ring-opening. The nature of the N-substituent affected principally the reaction rate. I (1 g.) and 2 ml. PhCH2NH2 (II) in 40 ml. anhyd. C6H6 kept several hrs. at room temp., the ppt. removed, and recrystd. from EtOH gave 0.25 g. 2,3-H2NCOC5H3NCONHCH2Ph; from the EtOH soln. was recovered 0.88 g. 3,2-isomer, m. 134-5.degree. (EtOH). I did not react with PhNH2 or NH3 under similar conditions.
N-Benzylquinolinimide did not react with PhNH2 or NH3 but with II gave 2,3-(PhCH2NHCO)2C5H3N. N-Phenylquinolinimide did not react with NH3 but with PhNH2 gave 2,3-(PhNHCO)2 C5H3N and with II gave principally 2,3-PhCH2NHCOC5H3-NCONHPh. N-Cyclohexylquinolinimide did not react with NH3.

IT **94301-63-0**, 2,3-Pyridinedicarboxanilide
(prepn. of)
RN 94301-63-0 CAPLUS
CN 2,3-Pyridinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)



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                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   56.93     205.29

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                   -7.81      -7.81

STN INTERNATIONAL LOGOFF AT 12:48:39 ON 07 AUG 2003
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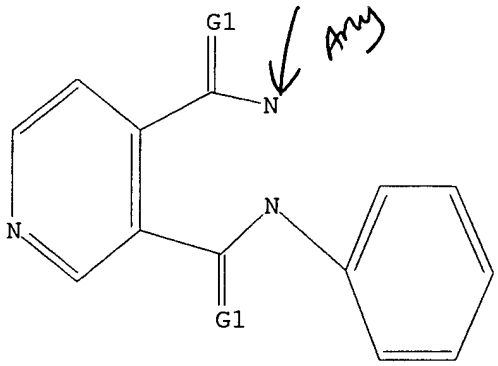

G1 O,S

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED - 22 TO ITERATE

100.0% PROCESSED 22 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 159 TO 721
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> s l1 sss full
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FULL SCREEN SEARCH COMPLETED - 417 TO ITERATE

100.0% PROCESSED 417 ITERATIONS 27 ANSWERS
SEARCH TIME: 00.00.01

L3 27 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	148.15	148.36

FILE 'CAPLUS' ENTERED AT 12:50:19 ON 07 AUG 2003
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FILE COVERS 1907 - 7 Aug 2003 VOL 139 ISS 6
FILE LAST UPDATED: 6 Aug 2003 (20030806/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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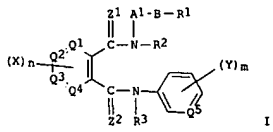
L4 8 L3

=> d ibib abs hitstr tot

L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:472653 CAPLUS
DOCUMENT NUMBER: 135:76795
TITLE: Preparation of aromatic and heteroaromatic diamide derivatives as insecticides
INVENTOR(S): Tohnishi, Masanori; Kohno, Eiji; Nakao, Hayami; Nishida, Tateki; Furuya, Takashi; Shimizu, Toshiaki; Seo, Akira; Sakata, Kazuyuki; Fujioka, Shinsuke
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001046124	A1	20010628	WO 2000-JP9146	20001222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001022229	A5	20010703	AU 2001-22229	20001222
JP 2001240580	A2	20010904	JP 2000-390649	20001222
BR 2000016573	A	20020903	BR 2000-16573	20001222
EP 1241159	A1	20020918	EP 2000-985836	20001222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: JP 1999-365408 A 19991222
WO 2000-JP9146 W 20001222
OTHER SOURCE(S): MARPAT 135:76795
GI

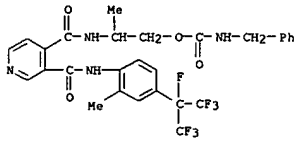


I

AB The title compds. I [A1 is optionally substituted C1-8 alkylene, C3-8 alkenylene, or the like; B is O or N(R4) (wherein R4 is H, C1-6 alkyl,

L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
halo C1-6 alkyl, or the like); R1 is H, C1-6 alkyl, optionally substituted Ph, an optionally substituted heterocyclic group, or the like; R2 and R3 are each H, C3-6 cycloalkyl, or A2R8 (wherein A2 is CO, CS, or C(:NR9); and R8 and R9 are each H, C1-6 alkyl, or the like); Q1 to Q5 are each carbon or nitrogen; X and Y are each halogeno, cyano, nitro, C3-6 cycloalkyl, optionally substituted Ph, an optionally substituted heterocyclic group, or the like; n is 0 to 4; m is 1 to 5; and Z1 and Z2 are each O or S] are prepd. Compds. of this invention at 50 ppm gave 90% to 99% control of Plutella xylostella and of Spodoptera litura.

IT **346575-47-1P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of arom. and heteroarom. diamide derivs. as insecticides)
RN 346575-47-1 CAPLUS
CN Carbamic acid, (phenylmethyl)-, 2-[[[3-[[[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]amino]carbonyl]-4-pyridinyl]carbonyl]amino]propyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:228847 CAPLUS
DOCUMENT NUMBER: 134:252360
TITLE: Preparation and effect of aromatic diamide derivatives or salts as agricultural/horticultural insecticides
INVENTOR(S): Tohnishi, Masanori; Nakao, Hayami; Kohno, Eiji; Nishida, Tateki; Furuya, Takashi; Shimizu, Toshiaki; Seo, Akira; Sakata, Kazuyuki; Fujioka, Shinsuke; Kanno, Hideo
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021576	A1	20010329	WO 2000-JP6514	20000922
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1215200	A1	20020619	EP 2000-961197	20000922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 2000014139	A	20020820	BR 2000-14139	20000922
JP 2001158764	A2	20010612	JP 2000-290844	20000925

PRIORITY APPLN. INFO.: JP 1999-270582 A 19990924
WO 2000-JP6514 W 20000922
OTHER SOURCE(S): MARPAT 134:252360
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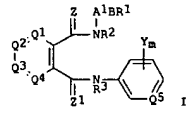
L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



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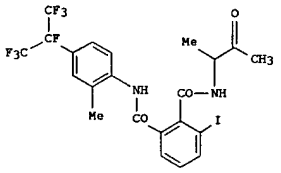
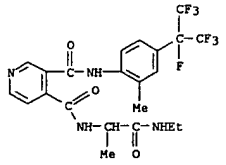


II

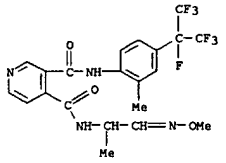
AB Title compds. [I; wherein A1 represents alkylene, alkenylene or alkynylene; B represents, CO, or CH(=N); R1 to R3 represent each H, CH3, CH2CH3, OCH2Ph, NHEt, NEt2, OMe, etc.; Q1-Q5 independently = CX, CH, N; X = 3-F, 3-Cl, 3-Br, 3-I, 6-I, 3-CF3, 3-OCF3, 3-NO2; Y represents halogeno, etc.; m is from 0 to 5; Z = O, S; Z1 = O, S] or salts thereof and agricultural/horticultural chems. contg. the same as the active ingredient are prepd. as insecticides. Thus, the title compd. II was prepd. and tested.

IT **331686-00-1P 331686-01-2P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and effect of arom. diamide derivs. or salts as agricultural horticultural insecticides)
RN 331686-00-1 CAPLUS
CN 3,4-Pyridinedicarboxamide, N4-[2-(ethylamino)-1-methyl-2-oxoethyl]-N3-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 331686-01-2 CAPLUS
CN 3,4-Pyridinedicarboxamide, N4-[2-(methoxyimino)-1-methylethyl]-N3-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:12413 CAPLUS
DOCUMENT NUMBER: 134:71497
TITLE: Preparation of heterocyclic dicarboxylic acid diamide derivatives as agricultural and horticultural insecticides
INVENTOR(S): Katsuhira, Takeshi; Furuya, Takashi; Gotoh, Makoto; Tohnishi, Masanori; Takaishi, Hideo; Sakata, Kazuyuki; Morimoto, Masayuki; Seo, Akira
PATENT ASSIGNEE(S): Nihon Nohyaku Co., Ltd., Japan
SOURCE: PCT Int. Appl., 160 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001000575	A1	20010104	WO 2000-JP4136	20000623
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000011818	A	20020319	BR 2000-11818	20000623
EP 1188745	A1	20020320	EP 2000-940823	20000623
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AU 761273	B2	20030529	AU 2000-55689	20000623
JP 2001064258	A2	20010313	JP 2000-191500	20000626

PRIORITY APPLN. INFO.: JP 1999-179035 A 19990624
WO 2000-JP4136 W 20000623
OTHER SOURCE(S): MARPAT 134:71497
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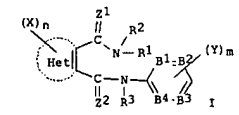
L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



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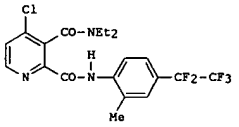
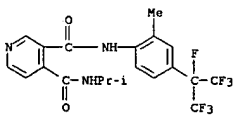


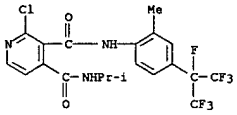
II

AB The title compds. I [R1, R2 and R3 represent each H, optionally halogenated C3-6 cycloalkyl, etc.; Het represents a 5- or 6-membered heterocycle; X and Y represent each halocyano, nitro, optionally halogenated C3-6 cycloalkyl, optionally substituted Ph, an optionally substituted heterocycle, etc; n is from 0 to 3; m is from 1 to 5; Z1 and Z2 represent each O or S; and B1 to B4 represent each C or N] are prepd. I have an excellent controlling effect on pest insects such as diamond-back moth (Plutella xylostella) and tobacco cutworm (Spodoptera litura). The title compd. II at 500 ppm gave .gtoreq. 90% control of Plutella xylostella.
IT **314762-60-2P 314762-61-3P 314762-62-4P 314762-63-5P 314762-64-6P**
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of heterocyclic dicarboxylic acid diamide derivs. as agricultural and horticultural insecticides)
RN 314762-60-2 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(1-methylethyl)-N2-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

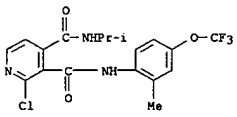


RN 314762-61-3 CAPLUS
CN 3,4-Pyridinedicarboxamide, 2-chloro-N3-(1-methylethyl)-N2-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

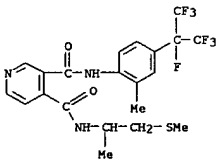
L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 314762-62-4 CAPLUS
CN 3,4-Pyridinedicarboxamide, 2-chloro-N3-(1-methylethyl)-N2-[2-methyl-4-(trifluoromethoxy)phenyl]- (9CI) (CA INDEX NAME)

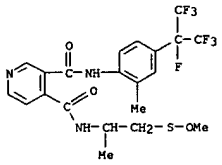


RN 314762-63-5 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-[1-methyl-2-(methylthio)ethyl]-N2-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)



RN 314762-64-6 CAPLUS
CN 1-Propanesulfenic acid, 2-[[[3-[[[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]amino]carbonyl]-4-pyridinyl]carbonyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

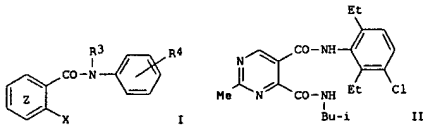
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:576911 CAPLUS
DOCUMENT NUMBER: 131:199705
TITLE: Preparation of heterocyclic anilides as herbicides
INVENTOR(S): Akiyama, Shigeaki; Kondo, Yasuo; Adachi, Michiaki; Mizukoshi, Takashi; Watanabe, Shigeomi; Akiyoshi, Chiaki; Ohki, Tooru; Nakahira, Kunimitsu
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 256 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9944992	A1	19990910	WO 1999-JP1048	19990304
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9927458	A1	19990920	AU 1999-27458	19990304

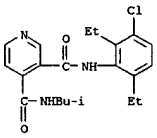
PRIORITY APPLN. INFO.: JP 1998-53485 19980305
JP 1998-165661 19980612
JP 1998-268025 19980922
WO 1999-JP1048 19990304

OTHER SOURCE(S): MARPAT 131:199705
GI

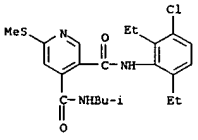


AB The title compds. I [ring Z represents 3,4-substituted pyridine, pyrimidine, or pyrazine which are optionally substituted with alkyl, etc.; R3 represents H, C1-6 alkyl, (substituted) phenylalkyl, etc.; R4 represents H, halogeno, nitro, cyano, C1-6 alkyl, etc.; and X represents alkoxycarbonyl, alkylaminoaminocarbonyl, cyano, alkylcarbonyl, (substituted) oxadiazolyl, etc.] are prepd. The title compd. II (at 2.5 g/are) gave .gtoreq. 90% control of barnyard grass and caused no damage to

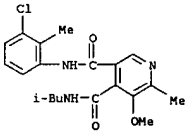
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
rice plants.
IT **241469-22-7P 241469-23-8P 241469-24-9P**
241469-25-0P 241469-26-1P 241469-27-2P
241469-28-3P 241469-29-4P 241469-30-7P
241469-31-8P 241469-32-9P 241469-33-0P
241469-34-1P 241469-84-1P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of heterocyclic anilides as herbicides)
RN 241469-22-7 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-N4-(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 241469-23-8 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-N4-(2-methylpropyl)-6-(methylthio)- (9CI) (CA INDEX NAME)

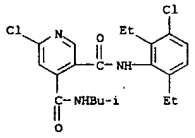


RN 241469-24-9 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2-methylphenyl)-5-methoxy-6-methyl-N4-(2-methylpropyl)- (9CI) (CA INDEX NAME)

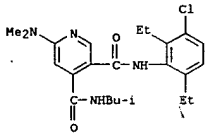


RN 241469-25-0 CAPLUS

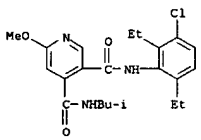
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)
CN 3,4-Pyridinedicarboxamide, 6-chloro-N3-(3-chloro-2,6-diethylphenyl)-N4-(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 241469-26-1 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-6-(dimethylamino)-N4-(2-methylpropyl)- (9CI) (CA INDEX NAME)

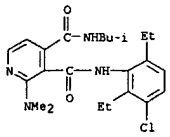


RN 241469-27-2 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-6-methoxy-N4-(2-methylpropyl)- (9CI) (CA INDEX NAME)

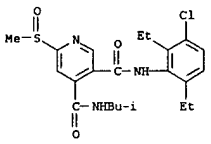


RN 241469-28-3 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-2-(dimethylamino)-N4-(2-methylpropyl)- (9CI) (CA INDEX NAME)

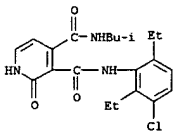
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 241469-29-4 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-N4-(2-methylpropyl)-6-(methylsulfinyl)- (9CI) (CA INDEX NAME)

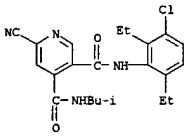


RN 241469-30-7 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-1,2-dihydro-N4-(2-methylpropyl)-2-oxo- (9CI) (CA INDEX NAME)

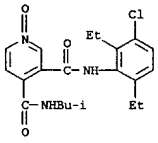


RN 241469-31-8 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-5-methoxy-6-methyl-N4-(2-methylpropyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

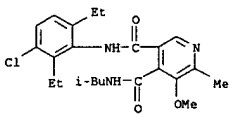


RN 241469-84-1 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-N4-(2-methylpropyl)-, 1-oxide (9CI) (CA INDEX NAME)

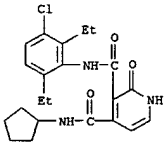


REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

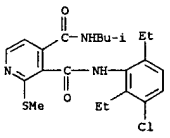
L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 241469-32-9 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-N4-cyclopentyl-1,2-dihydro-2-oxo- (9CI) (CA INDEX NAME)



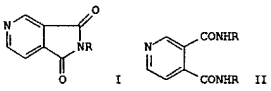
RN 241469-33-0 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-N4-(2-methylpropyl)-2-(methylthio)- (9CI) (CA INDEX NAME)



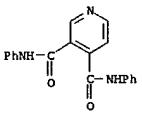
RN 241469-34-1 CAPLUS
CN 3,4-Pyridinedicarboxamide, N3-(3-chloro-2,6-diethylphenyl)-6-cyano-N4-(2-methylpropyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:449341 CAPLUS
DOCUMENT NUMBER: 115:49341
TITLE: A new method for the synthesis of N,N'-disubstituted picolinic amides
AUTHOR(S): Hussein, Salim H.; Ahmed, Badie A.; Al-Kattan, Widad T.; Al-Rawi, Jasim M. A.
CORPORATE SOURCE: Coll. Sci., Univ. Mosul, Mosul, Iraq
SOURCE: Asian Journal of Chemistry (1991), 3(1), 52-7
CODEN: AJCHEW; ISSN: 0970-7077
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 115:49341
GI

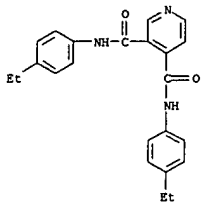


AB Reaction of N-substituted pyrrolopyridinediones I (R = Bu, CHMe2, CH2Ph, substituted Ph) with RNH2 gave a series of new N,N'-disubstituted picolinic amides II in good yields.
IT **94301-64-1P 134852-18-9P 134852-19-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 94301-64-1 CAPLUS
CN 3,4-Pyridinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)

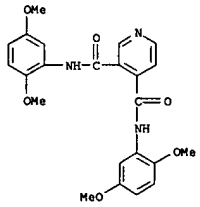


RN 134852-18-9 CAPLUS
CN 3,4-Pyridinedicarboxamide, N,N'-bis(4-ethylphenyl)- (9CI) (CA INDEX NAME)

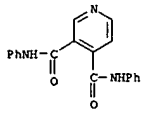
L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



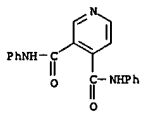
RN 134852-19-0 CAPLUS
CN 3,4-Pyridinedicarboxamide, N,N'-bis(2,5-dimethoxyphenyl)- (9CI) (CA INDEX NAME)



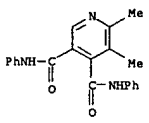
L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1964:90664 CAPLUS
DOCUMENT NUMBER: 60:90664
ORIGINAL REFERENCE NO.: 60:15809g-h
TITLE: Catalytic reduction of furan carbonyl and hydroxy compounds
AUTHOR(S): Shuikin, N. I.; Bel'skii, I. F.; Savekina, O. N.
CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Moscow
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1964), (3), 534-7
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB 2-Acylfurans were reduced in 95% yield to the corresponding alkylfurans over Raney Cu at 220.degree.; thus were obtained 2-methyl-5-propyl-, 2,4-dimethyl-5-ethyl-, and 2-methyl-4,5-diethylfurans. Alkylfurylcarbinols were reduced at 220.degree. over 10% Pt-C or Raney Ni to the corresponding alkylfurans, which, in turn, were converted by hydrogenolysis into aliphatic ketones; the C-O bond cleavage took place over Pt-C, while over Raney Ni a conjugated hydrogenolysis took place to yield mixts. of 35-50% 2-alkylfurans and 40-50% aliphatic ketones.
IT 94301-64-1, 3,4-Pyridinedicarboxanilide
(prepn. of)
RN 94301-64-1 CAPLUS
CN 3,4-Pyridinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1964:90663 CAPLUS
DOCUMENT NUMBER: 60:90663
ORIGINAL REFERENCE NO.: 60:15809f-h
TITLE: Acylations with the acid chlorides of 2,5-diphenylfuran-3,4-dicarboxylic acid and 2,5-dimethylfuran-3,4-dicarboxylic acid and related compounds. II
AUTHOR(S): Nightingale, Dorothy V.; Needles, Howard L.
CORPORATE SOURCE: Univ. of Missouri, Columbia
SOURCE: Journal of Heterocyclic Chemistry (1964), 1(2), 74-5
CODEN: JHTCAD; ISSN: 0022-152X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. CA 53, 21869c. The Friedel-Crafts acylation of 6 phenol ethers with 2,5-diphenylfuran-3,4-dicarbonyl chloride and with 2,5-dimethylfuran-3,4-dicarbonyl chloride yielded 2,5-disubstituted-3,4-diaroylfurans or cyclic diketones. 2,5-Diphenylfuran-3,4-dicarboxylic acid anhydride were treated with these ethers to form oxo acids.
IT 94301-64-1, 3,4-Pyridinedicarboxanilide
(prepn. of)
RN 94301-64-1 CAPLUS
CN 3,4-Pyridinedicarboxamide, N,N'-diphenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1960:62722 CAPLUS
DOCUMENT NUMBER: 54:62722
ORIGINAL REFERENCE NO.: 54:12131c-g
TITLE: Reaction of pyridine-3,4-dicarboxylic acids with hydrazine and aniline
AUTHOR(S): Kondrat'eva, G. Ya.; Huang, Chih-Heng
CORPORATE SOURCE: N. D. Zelinskii Inst. Org. Chem., Moscow
SOURCE: Doklady Akademii Nauk SSSR (1960), 131, 94-7
CODEN: DANKAS; ISSN: 0002-3264
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Heating 2,5,6-trimethylpyridine-3,4-dicarboxylic acid with N2H4.H2O in (CH2OH)2 15 min. gave 60% corresponding N,N-hydrazide (I), m. 211-12.degree., which heated with salicylaldehyde in EtOH gave 89-92% o-hydroxybenzylidene deriv., C17H15N3O2, m. 191-1.5.degree.; the p-hydroxy analog m. 233-4.5.degree.. The insol. material from isolation of 2,5-di-Me analog of I was extd. with hot EtOH to leave 5% pyridazinedione, m. 328-31.degree., while the alc. ext. yielded 67.5% 2,5-dimethylpyridine-3,4-dicarboxylic acid N,N-hydrazide, m. 175-8.degree.. Heating this acid as above with N2H4.H2O (4 g./l. g.) in (CH2OH)2 1 hr. gave 60% 2,5-dimethylpyrido[3,4-d]pyridazinedione, decompd. 333.degree.. Similarly were prepd.: 70% 2,6-dimethylpyrido[3,4-d]pyridazinedione, decompd. 290-3.degree.; 62.5% 5,6-dimethylpyrido[3,4-d]pyridazinedione, decompd. 333.degree. (the yield from di-Me ester of the acid was 70.2%); 5-hydroxy-2-methylpyrido[3,4 - d]pyridazinedione, decompd. 308.degree.. Heating 2,5,6-trimethylpyridine-3,4-dicarboxy-N-phenylimide with N2H4.H2O in (CH2OH)2 6 hrs. gave 73% 2,5,6 - trimethylpyrido[3,4 - d]pyridazinedione, decompd. 316.degree.. Heating appropriate dicarboxylic acids with PhNH2 2-4 hrs. at 160-80.degree. gave the N-phenylimides of: 2,5-dimethylpyridine-3,4-dicarboxylic acid, 51%, m. 133.5-4.degree.; 2,5,6-trimethylpyridine-3,4-dicarboxylic acid, 62%, m. 152-4.degree.; 2,6-dimethylpyridine-3,4-dicarboxylic acid, 52.8%, m. 145-6.degree.. 5,6-Dimethyl-3,4-pyridinedicarboxylic acid dianilide, 40%, m. 190-2.degree..
IT 102479-67-4, 3,4-Pyridinedicarboxanilide, 5,6-dimethyl-
(prepn. of)
RN 102479-67-4 CAPLUS
CN 3,4-Pyridinedicarboxanilide, 5,6-dimethyl- (6CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	36.71	185.07

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.21	-5.21

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3	323	(514/307, 514/309, 514/311, 514/312, 514/355, 514/354, 546/141, 546/146, 546/156, 546/169, 546/316, 546/323, 546/313) and insecticide$	USPAT	2003/08/12 14:46